IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

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1. (Currently Amended): A magnetoresistance effect element comprising:

two ferromagnetic layers, one of the two ferromagnetic layers being a magnetization fixed layer having a magnetization direction substantially fixed to one direction, and the other ferromagnetic layer being a magnetization free layer having a magnetization direction varying in response to an external magnetic field;

a non-magnetic layer provided between the ferromagnetic layers; and

a layer containing an oxide as a principal component containing a magnetic transition metal element which does not bond to oxygen and which is at least one of Co, Fe and Ni, the magnetic transition metal element which does not bond to oxygen being inside the layer containing the oxide as the principal component,

the magnetoresistance effect element having a resistance varying in response to a relative angle between the magnetization direction of the magnetization fixed layer and the magnetization direction of the magnetization free layer.

2. (Currently Amended): A magnetoresistance effect element ~~as set forth in claim 1, wherein~~ comprising:

two ferromagnetic layers, one of the two ferromagnetic layers being a magnetization fixed layer having a magnetization direction substantially fixed to one direction, and the other ferromagnetic layer being a magnetization free layer having a magnetization direction varying in response to an external magnetic field;

a non-magnetic layer provided between the ferromagnetic layers; and

~~the~~ a layer containing ~~the~~ an oxide as the principal component ~~contains~~ containing a magnetic transition metal element of Co which does not bond to oxygen,

the magnetoresistance effect element having a resistance varying in response to a relative angle between the magnetization direction of the magnetization fixed layer and the magnetization direction of the magnetization free layer.

3. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein a thickness of the layer containing the oxide as the principal component is in the range of from 1 nm to 3 nm.

4. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein the layer containing the oxide as the principal component contains an oxide of any one of Fe, Co, Ni, Mn, Cr, V, Ti, Zr, Mo, Hf, Ta, W and Al.

5. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein the magnetization fixed layer comprises a plurality of stacked layers, and the layer containing the oxide as the principal component is provided between layers constituting the magnetization fixed layer.

6. (Previously Presented): A magnetoresistance effect element as set forth in claim 5, wherein a thickness of the layer constituting the magnetization fixed layer between the non-magnetic layer and the layer containing the oxide as the principal component is in the range of from 1 nm to 3 nm.

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7. (Original): A magnetoresistance effect element as set forth in claim 1, wherein the magnetization fixed layer comprises:

a layer having a magnetization direction substantially fixed to one direction;

a second non-magnetic layer; and

a third ferromagnetic layer antiferromagnetically bonding to the layer having the magnetization direction substantially fixed to one direction, via the second non-magnetic layer.

8. (Currently Amended): A magnetoresistance effect element ~~as set forth in claim 1, wherein~~ comprising:

two ferromagnetic layers, one of the two ferromagnetic layers being a magnetization fixed layer having a magnetization direction substantially fixed to one direction, and the other ferromagnetic layer being a magnetization free layer having a magnetization direction varying in response to an external magnetic field;

a non-magnetic layer provided between the ferromagnetic layers; and

a layer containing an oxide as a principal component containing a magnetic transition metal element which does not bond to oxygen and which is at least one of Co, Fe and Ni, and ~~the layer having the oxide as the principal component contacts~~ contacting an opposite surface of the magnetization free layer to the non-magnetic layer via a second non-magnetic layer,

the magnetoresistance effect element having a resistance varying in response to a relative angle between the magnetization direction of the magnetization fixed layer and the magnetization direction of the magnetization free layer.

9. (Original): A magnetoresistance effect element as set forth in claim 8, wherein a total thickness of the magnetization free layer and the second non-magnetic layer is in the range of from 2 nm to 4 nm.

10. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein a layer which contacts the layer containing the oxide as the principal component contains any one from the group of argon, xenon, helium, krypton and neon, and

wherein an atomic composition of at least one of argon, xenon, helium, krypton and neon contained in the layer containing the oxide as the principal component is twice or more as much as the atomic composition of that in the layer which contacts the layer containing the oxide as the principal component.

11. (Currently Amended): A magnetoresistance effect element comprising a spin-valve film, the spin valve film including:

a magnetization fixed layer having a ferromagnetic layer having a magnetization direction substantially fixed to one direction;

a magnetization free layer having a ferromagnetic layer having a magnetization direction varying in response to an external magnetic field;

a non-magnetic intermediate layer provided between the magnetization fixed layer and the magnetization free layer, and being made of metal;

a high conductive layer having a higher conductivity than those of the magnetization fixed layer and the magnetization free layer, being stacked on one side of the magnetization free layer remoter from the non-magnetic intermediate layer; and

a non-magnetic crystalline layer provided on one side of the high conductive layer remoter from the magnetization free layer, and containing a compound of an element, which

is different from the principal element constituting the high conductive layer, as a principal component, the non-magnetic crystalline layer being substantially non-magnetic and being substantially crystalline.

12. (Original): A magnetoresistance effect element as set forth in claim 11, wherein the non-magnetic crystalline layer contains at least one of oxides of B, Si, Ge, W, Nb, Mo, P, V, Sb, Zr, Ti, Zn, Pb, Cr, Sn, Ga, Fe, Co and rare earth metals.

13. (Original): A magnetoresistance effect element as set forth in claim 11, wherein a thickness of the non-magnetic crystalline layer is in the range of from 0.5 nm to 5 nm.

14. (Original): A magnetoresistance effect element as set forth in claim 11, wherein a thickness of the high conductive layer is in the range of from 0.5 nm to 3 nm.

15. (Withdrawn): A magnetoresistance effect element comprising:

a magnetization fixed layer having a ferromagnetic layer having a magnetization direction substantially fixed to one direction;

a magnetization free layer having a ferromagnetic layer having a magnetization direction varying in response to an external magnetic field;

a non-magnetic intermediate layer provided between the magnetization fixed layer and the magnetization free layer;

a high conductive layer having a higher conductivity than those of the magnetization fixed layer and the magnetization free layer, being stacked on one side of the magnetization free layer remoter from the non-magnetic intermediate layer;

a first compound layer provided on one side of the high conductive layer remoter from the magnetization free layer, and containing a oxide of an element, which is different from the principal element constituting the high conductive layer, as a principal component; and

a second compound layer provided on one side of the first compound layer remoter from the high conductive layer.

16. (Withdrawn): A magnetoresistance effect element as set forth in claim 15, wherein the first compound layer contains an oxide of a first element selected from a ranking of elements consisting of B, Si, Ge, Ta, W, Nb, Al, Mo, P, V, As, Sb, Zr, Ti, Zn, Pb, Th, Be, Cd, Sc, La, Y, Pr, Cr, Sn, Ga, Cu, In, Rh, Pd, Mg, Li, Ba, Ca, Sr, Mn, Fe, Co, Ni, and Rb, as a principal component and

the second compound layer contains an oxide of an element of the ranking of elements arranged after the first element, as a principal component.

17. (Withdrawn): A magnetoresistance effect element as set forth in claim 15, wherein a total thickness of the first compound layer and the second compound layer is in the range of from 0.5 nm to 5 nm.

18. (Withdrawn): A magnetoresistance effect element as set forth in claim 11, wherein a thickness of the high conductive layer is in the range of from 0.5 nm to 3 nm.

Claims 19 and 20 (Canceled).

21. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein a current is applied in a direction parallel to the surfaces of the two ferromagnetic layers.

22. (Previously Presented): A magnetoresistance effect element as set forth in claim 1, wherein a current is applied in a direction perpendicular to the surfaces of the two ferromagnetic layers.

23. (Previously Presented): A magnetoresistance effect element as set forth in claim 11, wherein a current is applied in a direction parallel to the surfaces of the magnetization fixed layer and the magnetization free layer.

24. (Previously Presented): A magnetoresistance effect element as set forth in claim 11, wherein a current is applied in a direction perpendicular to the surfaces of the magnetization fixed layer and the magnetization free layer.

25. (Previously Presented): A magnetoresistance effect element as set forth in claim 11, wherein the magnetoresistance effect element has a giant magnetoresistance effect.

Claim 26 (Canceled).